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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,850	07/25/2001	Ikuo Aoki	1293.1228	3894
49455	7590	08/11/2005	EXAMINER	
STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005			ORTIZ CRIADO, JORGE L	
			ART UNIT	PAPER NUMBER
			2655	

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/911,850	Applicant(s) AOKI, IKUO	
	Examiner Jorge L. Ortiz-Criado	Art Unit 2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,6-16,18-22,24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6-16,18-22,24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1,3, 6-16, 18-22 and 24-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1, 11,24 and 25 recites the limitation “at positions that is/are based on a size of the arbitrary recording capacity/coupling area/additional coupling portion”. The Examiner cannot readily ascertain /map with the above claim language, where in the specification as originally filed, including the portion of the specification cited by the Applicant (i.e. [0022]), a disclosure/support is found in the descriptive portion of the specification by reference to the drawing, designating the part or parts to which the terms “at positions that is/are based on a size of the arbitrary recording capacity/coupling area/additional coupling portion” applies. Hence, the new limitation is considered new matter.

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Claim 11 recites the limitation "a coupling area having an arbitrary size". The Examiner cannot readily ascertain /map with the above claim language, where in the specification as originally filed, a disclosure/support is found in the descriptive portion of the specification by reference to the drawing, designating the part or parts to which the terms "a coupling area having an arbitrary size" applies. Hence, the new limitation is considered new matter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 recites the limitation "the zone start pattern/the zone end pattern" in line 7 of the claim. There is insufficient antecedent basis for this limitation in the claim.

As far as the claims recites positive limitations the following art rejections are made.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 8-16, 18-22, 24-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Aoki, Japanese Publication No. 2000-195060.

Regarding claim 1, Aoki discloses an optical disc, comprising:

track grooves formed in a radial direction of the disc, with the disc being divided into a plurality of zones (See Detailed description paragraphs [007]-[008], [0013]-[0015]; Drawings 1,2),

the track grooves being formatted into a waved pattern in the radial direction of the disc, overlapped over recorded user data, so as to record zone address information for each of the divided zones based on a predetermined modulation rule, wherein each zone has an initial recording capacity to which an arbitrary recording capacity is added as needed for each zone (See Detailed description paragraphs [007]-[008], [0013]-[0015]; Drawings 1,2,5), and

wherein an arbitrary area at an inner and/or outer circumferences in each zone includes a coupling area separate from a user data recording area to provide the arbitrary recording capacity as needed to each zone (See Detailed description paragraphs [0028]-[0030]; Drawings 5- "ID area separate from the DATA" , in each m-1,m, and m+1 zones etc.), and

wherein, during recording of the user data, in each zone a zone start pattern and/or zone end pattern is additionally recorded at "a position that is based on a size of the arbitrary recording capacity" (See Detailed description paragraphs [0028]-[0030]; Drawings 5, "Address information of the zone")

Regarding claim 3, Aoki discloses wherein the coupling area has a predetermined pattern (See Detailed description paragraphs [0028]-[0030]; Drawings 5- "ID section separate from the DATA", in each m-1, m, and m+1 zones", predetermined information recorded in the ID section)

Regarding claim 8, Aoki discloses wherein the optical disc is a DVD-RAM disc (See Detailed description paragraphs [002]-[008], [0013]-[0015]; Drawings 1,2,5)

Regarding claim 9, Aoki discloses wherein each zone has a plurality of sectors (See Detailed description paragraphs [002]-[008], [0013]-[0015]; Drawings 1,2,5)

Regarding claim 10, Aoki discloses wherein each of the plurality of sectors has a sector address portion to store a corresponding sector address (See Detailed description paragraphs [002]-[008], [0013]-[0015]; Drawings 1,2,5)

Regarding claim 11, Aoki discloses an optical disc, comprising:
a plurality of tracks formed in a spiral direction of the optical disc, each track having at least a groove portion (See Detailed description paragraphs [007]-[008], [0013]-[0015]; Drawings 1,2); and

a plurality of zones, each zone including a predetermined number of the plurality of tracks and "a coupling area having an arbitrary size" at an inner and/or outer circumference of each zone, separate from a user data recording area of each zone (See Detailed description

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paragraphs [007]-[008], [0013]-[0015]; Drawings 1, 2, 5-“ID section separate from the DATA” ,
in each m-1,m, and m+1 zones etc.),

wherein the optical disc is formatted to include zone addresses for each zone by
formatting a portion of the corresponding zone track grooves, in each zone, to include a wobble
pattern based on a predetermined modulation rule, and wherein, during recording of user data, in
each zone an arbitrary zone start pattern and/or zone end pattern is additionally recorded “a
position that is based on a size of the arbitrary recording capacity” (See Detailed description
paragraphs [007]-[008], [0013]-[0015], [0028]-[0030]; Drawings 5, “Address information of the
zone”)

Regarding claim 12, Aoki discloses wherein each track further includes a land portion
(See Detailed description paragraphs [007]-[008], [0013]-[0015]; Drawings 1,2)

Regarding claim 13, Aoki discloses wherein land and groove recording and reproduction
is possible, respectively, to and from more than one spiral of the optical disc See Detailed
description paragraphs [007]-[008], [0013]-[0015]; Drawings 1,2)

Regarding claim 14, Aoki discloses wherein the optical disc is a DVD-RAM disc (See
Detailed description paragraphs [002]-[008], [0013]-[0015]; Drawings 1,2,5)

Regarding claim 15, Aoki discloses wherein each zone further includes a coupling areas,
with the coupling area being in the inner and/or outer circumference of the corresponding zone

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(See Detailed description paragraphs [007]-[008], [0013]-[0015]; Drawings 1, 2, 5-“ID section separate from the DATA”, in each m-1, m, and m+1 zones etc.)

Regarding claim 16, Aoki discloses wherein a predetermined pattern is recorded in the coupling area, with the pattern being based on a recording or reproduction system to perform recording or reproduction, respectively, to or from the optical disc (See Detailed description paragraphs [007]-[008], [0013]-[0015], [0028]-[0030]; Drawings 5, “Address information of the zone”)

Regarding claim 18, wherein the predetermined modulation rule is one of an FM modulation, an AM modulation, and a PM modulation (Inherently to Aoki)

Regarding claim 19, Aoki discloses wherein the predetermined number of the plurality of tracks for each zone is based upon the data recording capacity needed for each zone plus an arbitrary recording capacity (See Detailed description paragraphs [007]-[008], [0013]-[0015], [0028]-[0030]; Drawings 5-“Data Area plus ID area”)

Regarding claim 20, Aoki discloses wherein the arbitrary recording capacity is a coupling area (See Detailed description paragraphs [007]-[008], [0013]-[0015], [0028]-[0030]; Drawings 5-“ ID area”)

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Regarding claim 21, Aoki discloses wherein each zone has a plurality of sectors (See Detailed description paragraphs [002]-[008], [0013]-[0015]; Drawings 1,2,5)

Regarding claim 22, Aoki discloses wherein each of the plurality of sectors has a sector address portion to store a corresponding sector address (See Detailed description paragraphs [002]-[008], [0013]-[0015]; Drawings 1,2,5)

Regarding claim 24, Aoki discloses a method of recording data on an optical disc, comprising:

dividing the optical disc into a plurality of zones; formatting a zone address portion of one of the zones to include a wobble pattern based on a predetermined modulation rule and corresponding to an address of the zone (See Detailed description paragraphs [007]-[008], [0013]-[0015]; Drawings 1,2),

recording user data in a user data portion of the zone; and recording a predetermined pattern in an additional coupling portion of the zone, after the recording of user data; and recording, in each zone, a zone start pattern and/or a zone end pattern “at positions that are based on a size of the additional coupling portion”. (See Detailed description paragraphs [007]-[008], [0013]-[0015], [0028]-[0030]; Drawings 5-“Data Area plus ID area”)

Regarding claim 25, Aoki discloses a method of recording data on an optical disc, comprising:

dividing the optical disc into a plurality of zones; formatting a zone address portion of one of the zones to include a wobble pattern based on a predetermined modulation rule and corresponding to an address of the zone (See Detailed description paragraphs [007]-[008], [0013]-[0015]; Drawings 1,2); and

recording user data in a user data portion of the zone and an additional coupling portion as needed, including recording of a zone start position, then recording of the user data, then recording of a zone end position, wherein a zone start pattern and/or the zone end pattern are recorded "at positions that are based on a size of the additional coupling portion" (See Detailed description paragraphs [007]-[008], [0013]-[0015], [0028]-[0030]; Drawings 5-"start zone area "m-1", then DATA area of zone "m-1" then end of zone m-1, then start of zone "m", then DATA area then end of zone "m", then start zone "m+1"...)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki, Japanese Publication No. 2000-195060 in view of Maeda U.S. Patent No. 6,028,828.

Aoki discloses all the limitations based on claim 1 as outlined above. Aoki further discloses wherein, when data is recorded or reproduced at both sides of a land portion and a groove portion formed by one of the track grooves (See Detailed description paragraphs [002]-[008], [0013]-[0015]; Drawings 1,2,5)

Aoki does not expressly disclose the sequence in recording or reproduction of data in each zone is performed according to a following sequence: after recording or reproduction at a groove/land portion in each zone is completed, recording or reproduction at the land/groove portion is performed.

However, this feature is well known in the art as evidenced by Maeda, which discloses which discloses having a disk divided into a plurality of zones forming track grooves formed in a radial direction of the disc wherein the track grooves are formatted into a waved pattern in the radial direction of the disc, overlapped over recorded user data, to record zone address information for each of the divided zones based on a predetermined modulation rule (See col. 3, lines 39-44; col. 8, line 63-to col. 9, line 25; col. 10, lines 36-42; Figs. 6,7,8,14) and wherein a sequence in recording or reproduction of data in each zone is performed according to a following sequence: after recording or reproduction at a groove/land portion in each zone is completed, recording or reproduction at the land/groove portion is performed (See col. 21, lines 8-26; Fig. 25)

It would have been obvious to one with ordinary skill in the art at the time of the invention to perform the sequence of recording/reproducing of data in each zone by after recording or reproduction at a groove/land portion in each zone is completed, recording or reproduction at the land/groove portion is performed, in order to avoid switching-over a groove

to a land or a land to a groove and allow continuous recording/reproduction and saving the time taken for switching-over operation, as suggested by Maeda.

Response to Arguments

6. Applicant's arguments filed 06/24/2004 have been fully considered but they are not persuasive.

Applicant argues that the Aoki does not teach or suggest "an arbitrary recording capacity added to a data recording capacity needed to each divided zone, a coupling area, and a zone start pattern or end pattern, wherein no coupling operation is performed", wherein the added capacity of each zone is permitted to vary, at positions that is/are based on a size of the arbitrary recording capacity/coupling area/additional coupling portion"

Applicant is reminded that, office personnel are to give claims their broadest reasonable interpretation in light of **the supporting disclosure**. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but NOT recited in the claim are NOT read into the claim. > E-Pass Techs., Inc. v. 3Com Corp., 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003) (claims must be interpreted "in view of the specification" without importing limitations from the specification into the claims unnecessarily).< In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See also In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)

And, the examiner cannot concur with applicant arguments because, Aoki as shown Drawing # 1 and as described in at least the cited portions, the disk is **divided** into a plurality of

zones having an arbitrary recording capacity needed to each divided zone, **as claimed**, in other words the overall recording **capacity** of the disk has been divided and each of one of the plurality of the zones are formatted to have an arbitrary recording capacity. Furthermore, the **examiner cannot find Where or How the capacity of the zone of Applicants claimed invention is permitted to vary**, either as claimed OR as described in t in light of the supporting disclosure of the specification, as argued. And it is apparently that also Applicant's invention each divided zone is formatted with **a fixed capacity**.

Aoki as claimed, discloses wherein an arbitrary area at inner and/or outer circumferences in each zone has "**coupling area**" separate from a user data recording area, as claimed. As shown in Drawing # 5, each zone comprises an arbitrary area "ID part" which is separate from the user data recording area "data part". Furthermore, this area as far as the examiner can tell is coupling each zone, and the examiner cannot find **What or How** exactly Applicants performs any "**coupling operation**", either as claimed or described in light of the supporting disclosure of the specification.

The Examiner cannot readily ascertain /map with the above claim language, where in the specification as originally filed, including the portion of the specification cited by the Applicant (i.e. [0022]), a disclosure/support is found in the descriptive portion of the specification by reference to the drawing, designating the part or parts to which the terms "at positions that is/are based on a size of the arbitrary recording capacity/coupling area/additional coupling portion" applies.

Nevertheless, Aoki as claimed and as described in for example paragraph [0029], discloses wherein during recording of the user data, in each zone an arbitrary "**zone start**

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pattern” and/or “zone end pattern” is additionally recorded, **“Zone Address Information”** for each zone is recorded and data/”patterns” are recorded identifying the beginning and/or end of each recorded zone, in which are recorded **based** on the arbitrary/predetermined size of the ID area separate of the separate from the user data recording area “data part”.

In regard to claim 25, Aoki as claimed discloses dividing the optical disc into a plurality of zones; formatting a zone address portion of one of the zones to include a wobble pattern based on a predetermined modulation rule and corresponding to an address of the zone (See for example paragraphs [0007]; paragraphs [0014]-[0018] Drawing # 1,2; and

And, as shown in Drawing # 5, Aoki is recording user data in a user data portion of the zone, including recording of a zone start position, then recording of the user data, then recording of a zone end position, it is clearly shown this particular sequence in the Drawings 5-“start zone area “m-1”, then DATA area of zone “m-1” then end of zone m-1, then start of zone “m”, then DATA area then end of zone “m”, then start zone “m+1” ...)

Conclusion

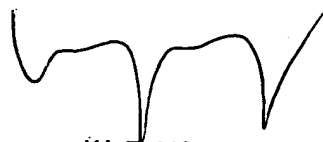
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L. Ortiz-Criado whose telephone number is (571) 272-7624. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm),Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Wayne R. Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'W. R. Young', with a stylized, wavy line above the text.

W. R. YOUNG
PRIMARY EXAMINER